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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF:

Jasper Jan Wickerhoff, et al.

EXAMINER: Swiatek, Robert P.

SERIAL NO. 10/621,362

FILED: July 18, 2003

GROUP ART UNIT: 3643

FOR: AN AEROPLANE PROVIDED WITH NOISE-REDUCING MEANS, AS WELL AS
A LANDING GEAR AND BLOWING MEANS

REPLY BRIEF

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

This is a reply to the Examiner's Answer dated September 9, 2005. This Reply Brief addresses the new ground of rejection included in the Examiner's Answer and the assertions made in the Examiner's Answer with respect to the original grounds of rejection.

I. REAL PARTY-IN-INTEREST

It is noted that the real party-in-interest is Stork SP Aerospace B.V. An assignment from SP Aerospace and Vehicle Systems B.V. to Stork SP Aerospace B.V. was executed January 11, 2005 and recorded on June 30, 2005 at reel 016454 and frame 0927. Applicants apologize for the incorrect real party-in-interest identified in the Appeal Brief.

II. RELATED APPEALS AND INTERFERENCES

The status of related appeals and interferences is the same as provided in the Appeal Brief.

III. STATUS OF CLAIMS

Claims 1-3, 7, 10-12 and 14 have been finally rejected and form the basis for this appeal. Claims 4-6, 8, and 9 have been objected to as dependent on a rejected based claim, but have been indicated to be otherwise allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claim 13 has been canceled. Appendix VIII of the Appeal Brief includes a clean copy of appealed Claims 1-3, 7, 10-12 and 14.

IV. STATUS OF AMENDMENTS

No amendments after final rejection have been filed.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 is directed to an aeroplane provided with a noise-reducing unit configured to reduce a noise level produced during a flight, in particular during a landing stage of the aeroplane, due to landing gear of the aeroplane. The noise reducing unit includes a blowing unit having a blowing element including at least one blowing nozzle for creating an air screen at a front side of a portion of or all of the landing gear. An exemplary embodiment is shown in Figure 1 and described in the specification from page 8, line 24 to page 9, line 9. In this exemplary embodiment, the blowing unit includes blowing element 4 with blowing nozzle 5 configured to create air screen 7 in front of landing gear 1.

Independent Claim 12 is directed to a blowing unit including at least one blowing nozzle for creating an air screen at a front side of a portion of the landing gear. An exemplary embodiment is shown in Figure 1 and described in the specification from page 8,

line 24 to page 9, line 9. In this exemplary embodiment, the blowing unit 4 includes blowing nozzle 5 configured to create air screen 7 in front of landing gear 1.

Independent Claim 14 is directed to a deflection element configured to create an air screen at a front side of a portion of the landing gear. An exemplary embodiment is shown in Figures 12a and 12b and described in the specification from page 14, line 23 to page 15, line 2. In this exemplary embodiment, the deflection element is made up of two curved deflection sections 90, 91 that are configured to create air screen 96 in front of the landing gear.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are:

(a) whether Claims 1, 2, 10/1, 10/2, 11/1, 11/2, 12 and 14 are anticipated under 35 U.S.C. §102(b) by Mayer, Jr. (This ground of rejection was initially treated in the Appeal Brief, and follow up comments are included herein.);

(b) whether Claims 1-3, 7, 10-12, and 14 are anticipated under 35 U.S.C. §102(b) by Passler (This ground of rejection was initially treated in the Appeal Brief, and follow up comments are included herein.); and

(c) whether Claims 1-3, 7, 10, and 11 are indefinite under 35 U.S.C. §112, second paragraph (This ground of rejection was first made in the Examiner's Answer and thus is initially treated herein.).

VII. ARGUMENTS

The Examiner's Answer adds a new ground of rejection of Claims 1-3, 7, 10, and 11 asserting that Claim 1 recites a range within a range based on the phrase "in particular during

the landing stage of the aeroplane.”¹ The rejection is apparently based on the prohibition of a narrow *numerical* range recited in a claim along with a broader *numerical* range, as discussed in MPEP §2173.05(c). However, in the present case, “in particular during the landing stage of the aeroplane” is not a numerical range, simply a condition under which the apparatus may be used. Accordingly, MPEP §2173.05(c) is not relevant here. Consequently, it is respectfully submitted that Claims 1-3, 7, 10, and 11 are in compliance with all requirements under 35 U.S.C. §112, second paragraph.

The Examiner's Answer reiterates the assertion in the Office Action that Claims 1, 12, and 14 are essentially inherently disclosed by Mayer, Jr. However, it is again respectfully submitted that a factual showing of inherency has not been made, nor have any technical reasons been presented to establish such inherency. The Examiner's Answer apparently attempts to provide “sound technical reasons” for the inherency rejection, but continues to use the language of probabilities, although this is forbidden by case law.² In this regard, the Examiner's Answer asks, “Would a large volume of air be deflected by the slots? Would sound be dramatically reduced? Probably no to both questions; however, claim 1 does not quantify the amount of air deflection or noise reduction achieved – only that some air is deflected, with a consequent reduction in noise.”³

Moreover, the premise is based on speculation that the slots 22 of Mayer, Jr. are going to somehow deflect air from landing gear not even shown by Mayer, Jr. In this regard, the Examiner's Answer speculates that “[i]f the landing gear were to the rear of the leading edges of the wings, oncoming air forced downwardly (diverted) by the tangential airflow from the lowermost slots 22 of Mayer Jr. would continue angularly down and miss the outstretched

¹See Examiner's Answer, page 3, lines 8-12.

²See Appeal Brief, page 6, lines 17-21.

³Examiner's Answer, page 4, lines 5-8.

landing gear.”⁴ No evidence has been provided to support this statement, and this unsupported assertion is clearly contradicted in light of the evidence provided by the Applicants that the boundary layer over the wing of a Boeing 747 is at most only 116 mm.

Further, there is no indication in Mayer, Jr. that any structure disclosed therein is intended to deflect any air from the landing gear. “An accidental or unwitting duplication of an invention cannot constitute an anticipation. *Tilghman v. Proctor*, 102 U.S. 707 (1880); *Eibel Process Co. v. Minnesota and Ontario Paper Co.*, 261 U.S. 45 (1923).” *In re Felton*, 179 USPQ 295, 298 (C.C.P.A. 1973). The Examiner's Answer⁵ at best proposes that an unwitting duplication of the invention recited in Claim 1 could occur because “a few molecules of air are shoved to one side by the air emerging from the slots of Mayer, Jr.” First of all, the result of a “few molecules of air” being moved is submitted to not form “an air screen.” Claim 1 requires the blowing unit to form an “air screen” not an “air sieve.” Also, a “few molecules of air” could not deflect oncoming air any great distance. Where is the P.T.O. required evidence or reasoning that the “air shoved to one side” will miss the landing gear?

Accordingly, it is respectfully submitted that Mayer, Jr. does not teach or suggest, explicitly or inherently, the subject matter of Claims 1 and 12 as to nozzle created air screens, much less forming any such air screen that can function as claimed in terms of purposefully deflecting air away from a portion of a landing gear so as to reduce noise.

With regard to Claim 14, Mayer, Jr. also does not teach or suggest “a deflection element configured to create an air screen at a front side of a portion of the landing gear, said air screen configured to deflect air flow away from said portion of said landing gear to reduce

⁴Examiner's Answer, page 4, lines 15-18.

⁵See Examiner's Answer, page 4, lines 12-13.

said noise.” The Examiner's Answer⁶ appears to suggest that it can again simply assume the aircraft fuselage will function as the claimed “deflection element.” However, the courts require the P.T.O. to produce evidence to support rejections, not such speculation. See *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1698 (Fed. Cir. 2001).

Since Mayer, Jr. does not teach, explicitly or inherently, each and every element of Claims 1, 12, and 14, Claims 1, 12, and 14 are clearly not anticipated by Mayer, Jr. Accordingly, reversal of the rejection of Claims 1, 2, 10/1, 10/2, 11/1, 11/2, 12 and 14 is believed to be in order.

The Examiner's Answer also reiterates the assertion in the Office Action that Claims 1, 12, and 14 are essentially inherently disclosed by Passler. Again, it is respectfully submitted that the legal requirements for a showing of inherency have not been met. First, no extrinsic evidence has been cited or provided supporting the assertions made in the Final Office Action. Second, it is respectfully submitted that no reasonable technical reasoning in support of the assumption made in the outstanding Office Action has been presented as to the blowing nozzle created air screen of independent Claims 1 and 12, much less the deflection element created air screen of independent Claim 14. Instead, the Examiner's Answer provides conclusory language assuming that the Passler reference anticipates the pending claims, “Although the Passler reference makes no reference to an air screen or landing gear sound reduction, without a doubt air emerging from the nozzle 1 would form a screen deflecting and entraining *some* air from the tires, subsequently reducing – however slightly – sound produced by the elements of the landing gear.”⁷ Again, there is no basis in fact provided for the assertion that simply assumes the air bounced off the runway would still

⁶See Examiner's Answer, page 4, line 20 to page 5, line 1. Although directed to the “deflection element” of Claim 11, this also appears to be the only rationale that is also applicable to Claim 14.

⁷Examiner's Answer, page 5, lines 5-8.

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have enough energy to block out the oncoming air from reaching the wheel. Clearly, speculation cannot substitute for EVIDENCE or SOUND SCIENTIFIC REASONING that "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill" as required by *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (emphasis added, citations omitted). See also MPEP §2112.

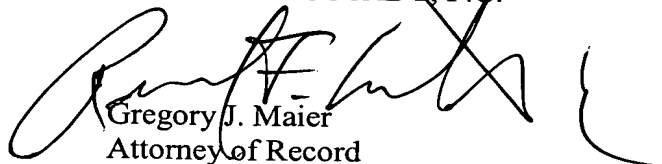
Further, the Examiner's Answer at best again proposes an unwitting duplication of the invention recited in Claim 1 by Passler. The case law discussed above clearly states this cannot be a basis for an anticipation rejection.

Accordingly, Claims 1, 12, and 14 (and Claims 2, 3, 7, 10, and 11 dependent therefrom) are believed to define over Passler for at least the reasons discussed herein and in the Appeal Brief.

It is respectfully requested that the outstanding rejections be REVERSED.

Respectfully submitted,

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